

CLAIMS

1. A valve assembly comprising:
 - a replacement valve comprising an inflow annulus, an outflow annulus, and a plurality of leaflets; and
 - a collapsible and expandable anchoring structure;
 - said anchoring structure being dimensioned to extend longitudinally from an attachment location near the inflow annulus of a valve sinus to an attachment location within a sinus cavity;
 - said anchoring structure further comprising a flared inflow rim and a plurality of flexible vertical posts extending from the inflow rim in a direction toward said outflow annulus of said valve.
 2. The valve assembly of claim 1, wherein said inflow annulus is scalloped.
 3. The valve assembly of claim 1, wherein said flared inflow rim comprises a ring configured in an undulating pattern.
 4. The valve assembly of claim 1, wherein said flexible vertical posts are configured to coincide longitudinally with the sinus commissural posts.
 5. The valve assembly of claim 1, wherein said flexible vertical posts further comprise a diamond-shaped element.
 6. The valve assembly of claim 5, wherein said flexible vertical posts flex inwardly at back flow pressure.
 7. The valve assembly of claim 1, wherein said valve is positioned internally to said anchoring structure.